# JOURNE® JOURNAL BOOK TO THE MILES AND THE MI

Vol. XV

Fall 1997

No. 4

A Research and Educational Publication of The Monroe Institute

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## 1997 Professional Seminar Overview

The "Embracing Resonance" theme made Edgar D. Mitchell, ScD, Apollo 14 astronaut and founder of the Institute of Noetic Sciences, an especially appropriate keynote speaker for the 1997 Professional Seminar. Dr. Mitchell spoke eloquently of experiencing the resonant nature of the universe while returning from his historic moon flight. That experience inspired the development of a cosmology embracing both science and mysticism and detailed in his book, The Way of the Explorer. His personal knowledge allowed Dr. Mitchell to make challenging concepts, such as nonlocality, simultaneous time, and the wave/particle nature of manifest reality, understandable to a diverse audience. Consciousness was shown to function co-creatively in the evolution of the cosmos. Dr. Mitchell noted that consciousness disciplines such as Hemi-Sync allow us to interact with the information/energy fields underlying observable reality and to have influence at the most fundamental levels. Within this context, a variety of presentations developed specific applications.

- Vincent C. Giampapa, MD, discussed the encouraging results of a one-subject study assessing Hemi-Sync's effect on key biomarkers of aging.
- Roger-Michel Poirier, MD, covered plans for the research design of a double-blind study using binaural beat technology to ameliorate anxiety.
- David Atkinson spoke of using Hemi-Sync as an ally in challenging the often hopeless prognosis of amyotrophic lateral sclerosis (Lou Gehrig's disease).
- Joan D. Lundgren, PhD, defined the spiritual dimension of midlife transition and Hemi-Sync's place in her Rim Model<sup>®</sup> of psychotherapy.
- James D. Lane, PhD, presented the final results of a double-blind study using binaural beat stimulation to increase vigilance. [See announcement in this issue.]
- Robert C. Holbrook, Jr., PhD candidate, shared his personal use of Hemi-Sync to support healing after a near-fatal accident. Parallels between this technology and indigenous peoples' uses of sound were developed.
- To METAMUSIC accompaniment, Gari Carter led a series of simple but dramatic exercises for "seeing" one's own and others' energy fields.
- Justine E. Owens, PhD, discussed preliminary findings of double-blind research using binaural beat stimulation to manage the perception of pain.
- Jonathan H. Holt, MD, described similarities between Hemi-Sync Focus levels and consciousness states achieved through neurofeedback and hypnosis.

Open Forum sessions explored other areas ripe for Hemi-Sync influence: Wilson's syndrome, a newly identified disease process triggered by environmental stressors; a wet cell device using extremely low electrical current to induce physiological homeostasis; the spectrum of birthing and deathing and using music and sound to change perceptions of self and situations. The tape-day intensive, orchestrated by TMI Trainer and *OUTREACH* Coordinator Bob McCulloch, continued the resonance motif.

The Seminar concluded with a reception and a ground-breaking ceremony at Roberts Mountain Retreat, the former home of Robert and Nancy Penn Monroe. Afterward, the group gathered around a blazing bonfire under a star-spangled sky and—with drums, digeridoo, and dulcimer—sent harmonious vibrations winging out to the far reaches of our interconnected universe.



## Hemi-Sync, Sound and Resonance



by Robert T. Hayduk, MA

Robert T. Hayduk is a curriculum consultant for Warren Consolidated Schools in Warren, Michigan and has been a sustaining member of TMI since 1987 and a professional member since 1994. The concepts in this paper were the basis of an experiential session presented as an Open Forum at the 1997 Professional Seminar.

The theme of the 1997 Professional Seminar, "Embracing Resonance," set the stage for considering the nature of our vibrating universe. Dr. Edgar Mitchell presented a model in which everything in the universe is energy manifesting itself through unique vibrational patterns. Vibration does indeed lie at the very core of our existence. Its principles are now being deciphered by modern physics, yet they were understood and utilized by the ancients.

The simplest definition of resonance is the universal striving of objects to vibrate at the same rate. One of the best examples is a tuning fork which—once struck and put near a similar tuning fork—will cause the second fork to vibrate at the same rate. Resonance is also the principle involved in the amplification and elongation of the sound/vibrations experienced when a guitar string is plucked and the wood of the hollow vibrates in tune with that string. We instinctively grasp the idea of resonance and demonstrate our understanding by using terms such as "in sync" or "out of sync" and getting good or bad "vibes" about a person or

situation. The phenomenon of resonance, while seemingly easy to understand, still holds many mysteries within its entraining capabilities.

Robert Monroe, as musician, sound engineer, researcher, and originator of the Hemi-Sync® binaural beat technology, clearly understood the concepts of resonance and entrainment. The physics of resonant entrainment in relation to Hemi-Sync is further explained in *The Hemi-Sync Process* by F. Holmes Atwater. Robert Monroe also knew, intuitively and through research, the importance of sound, tone and tuning in the human body. For this reason he included *Resonant Tuning* as a preparatory process in most of the Hemi-Sync exercises. Although users of Hemi-Sync are familiar with this technique, they may not fully appreciate its importance. This process of "tuning" or "toning," as it is sometimes called, is the focus of this paper.

Toning is the sounding of the human voice using sustained vowel sounds. Since ancient times toning and music have been used by all cultures and recognized as having a balancing, healing effect upon the human body. Music and chant have long been recognized as having the power to entrain the brain to frequencies that facilitate altered states of consciousness and give access to the well-being that can accompany such meditative states. Monks who ceased singing Gregorian chant in their monastery were observed to become ill and weakened until they resumed the practice. Recognition of this benefit may explain the recent phenomenon of Gregorian chant popularity. Respected psychic Edgar Cayce once predicted that sound would be the medicine of the future.

Don Campbell is a modern musician and music researcher who advocates the use of toning as a healing process. He has written and lectured extensively on the use of the voice as a healing tool. Campbell suggests the regular practice of sounding out all the vowels in a sustained, chant-like manner. It is through this practice that we become attuned to the particular sound frequencies that our body/mind system may need for balance at any given time. Unfortunately, we are so accustomed to professionally recorded music and song that we hesitate to use our less than perfect voices to sing out in this manner. Why else does it seem so comfortable to give voice to this inclination in the safety and privacy of the shower? One way to reclaim this healing process is to come out of the shower and make toning, singing and music a major part of daily routine.

The particular kind of music or vibrations that are beneficial at any given time may vary considerably among individuals. Debate continues over whether "Mozart makes you smarter" or if sixty beats per minute is optimal for learning. And much confusion has been generated by the labeling of music as "new age" or "relaxing." Steve Halpern, a noted artist and researcher of the healing effects of music, speaks to that confusion when he says that "Many people get turned off to the possibility of using music as an aid to relaxation if they have an unrewarding experience using the music that these so-called authorities suggest."

The Relaxation Company publishes a music series called *The Acoustic Research Series* performed by a variety of artists who have spent significant time researching the use of music in health and healing. The style, tempo and rhythms of these selections vary considerably and testify to the fact that what may be harmonious

for one person may be discordant for another. This raises a question: do we need to like and enjoy the music or sounds for them to help us? I have made it a practice to use Eastern Indian music in conjunction with color imagery intended for energy center balancing whenever illness threatens. This music isn't enjoyable for me but the results are undeniable.

It has long been recognized that music and sound not only entrain our brainwaves but can alter our moods and emotions. The experiences, memories, and even the unconscious associations we make to certain sounds and music can affect the way we respond to it. One thing is certain: music and sound can and will have profound effects upon our body/mind system. Knowing how to use them most effectively is a valuable skill.

Some interesting research has been conducted on "cardiac energy exchange" in conjunction with the Institute of HeartMath. The electromagnetic field of the heart has been studied in healers. Findings indicate that "as the field becomes more coherent the greater its capacity becomes to entrain ambient noise and thus to produce effects in biological tissue." It was noted that coherence increased with emotions of loving and caring and decreased with anger and frustration. This suggests that vibrational entrainment can take place even within the inaudible range of electromagnetic frequencies and that cardiac energy can be transmitted and received.

The research of Anna Wise also supports the likelihood of subtle energy entrainment. In mapping the brain states of individuals engaged in various activities she has demonstrated that a mother and a nursing child almost match in their brain wave patterns while a man and woman arguing display very dissimilar patterns. Wise also believes that the use of binaural beats and the entrainment of the brain to controlled frequencies can increase our creative potential and produce what she refers to as "the awakened mind condition" in which all levels of consciousness are accessible for creative thinking or problem solving.

As an educator, I am amazed at how little we use music in the classroom and how little we teach our children about the effects of music in their lives. If people are to "embrace resonance" for their well-being and development, opportunities to learn the techniques of toning and entrainment are essential at an early age. The use of these two words in conjunction is very interesting. If we are to "embrace resonance," we need to understand that it is resonance that embraces us in the sounds we hear and make. It is never too late to begin toning, tuning our bodies and minds to those sounds and frequencies that increase our well-being. Neither is it ever too late to find the music that helps us to heal, to relax, to be courageous or to love more intentionally.

Why not make METAMUSIC an accompaniment for chores, relaxation or sleep? In addition to the Resonant Tuning in Hemi-Sync exercises, try to do independent toning during the day. One way to do this is to hum and sing with music that you prefer. For me, cello music is particularly easy to tone with because of the deep, elongated vibrations. The music of Pat Clemence (particularly Promises) lends itself to humming and toning. And there are many others to discover and enjoy. In the words of that great philosopher, Big Bird, "Music is as natural as the sun or rain. I would hate to imagine our world without it, for my heart is a song."

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## IMPORTANT ANNOUNCEMENT

James D. Lane, PhD, associate research professor in the Division of Behavioral Medicine, Department of Psychiatry, Duke University Medical Center, recently completed a double-blind study into the effects of binaural beat stimulation on behavioral and electroencephalographic measures of alertness. As of September 2, the paper based on this study had been accepted by *Physiology & Behavior*. This is the first Hemi-Sync-related research to be published in a peer-reviewed journal. Congratulations, Dr. Lane!



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